

Z/034/61/000/010/001/002  
E112/E553

AUTHORS: Horčic, Karel, Engineer and Dvořáček, Josef

TITLE: Some problems of aluminium production

PERIODICAL: Hutnické listy, 1961, No.10, pp.710-715

TEXT: Present aluminium production in Czechoslovakia does not meet steadily increasing demands and projects for the building of additional plant, with special reference to available raw materials and their location, are discussed. The problem is presented in three main sections: 1) Production of aluminium oxide, 2) its conversion, by electrolysis, to aluminium, and 3) possibility of aluminium production by an electric furnace. Ad 1) Two processes are available for aluminium oxide production: the Bayer process which is only applicable to high-grade,  $\text{SiO}_2$ -poor bauxites and the older fusion process which is limited to lower-grade bauxites. The aluminium works in Czechoslovakia are based on aluminium oxide, produced by the fusion process from lower-grade Hungarian bauxite. The process is more complicated, energy expenditure is higher and the material is not very well suited for electroconductive aluminium. A special desilication process is

Card 1/5

Some problems of aluminium production 2/034/61/000/010/001/002  
E112/E553

inserted in the Czechoslovak plant. It is suggested that lower grade bauxites may be processed by a combination of the Bayer and fusion methods, but difficulties may be encountered at some stages of the process, particularly during filtration of the residues of iron oxides. Production costs of aluminium oxide and aluminium are itemized, indicating that raw material costs are the decisive factor for aluminium oxide, while electric energy is the essential factor for aluminium. ✓

<u>Aluminium:</u>	
Raw-material .....	56% (from 80% $Al_2O_3$ )
Electric energy .....	22%
Wages .....	3.9%
Maintenance .....	11.2%
Special costs .....	2.2%
Works overheads .....	4.7%
<u>Total</u>	<u>100.0%</u>

Card 2/5

Some problems of aluminium production Z/034/61/000/010/001/002  
E112/E553

<u>Aluminium oxide:</u>	
Raw materials (bauxite) .....	28%
Energy (electric, steam, water, air) .....	29%
Wages .....	5.5%
Maintenance .....	37.5%
Total	100.0%

The complex nature of the aluminium process is mirrored by high maintenance costs. Supplies of Hungarian bauxite are limited and domestic raw materials will have to be investigated. The kaolinites from the North Bohemian coal basin (dry contents: 30-35%  $Al_2O_3$ , 40-45%  $SiO_2$ , 2-10%  $Fe_2O_3$ , 1-6%  $TiO_2$ ) are, theoretically, of interest because of the relatively high Al content, but the high  $SiO_2$  ratio, on the other hand, would necessitate a preliminary treatment. Although the process would be complicated, it is estimated that costs would not exceed that of the fusion process from low-grade bauxites. Reliable data could, however, be established only after prolonged pilot-plane experiments. It is generally estimated that aluminium production from domestic materials would require a period from 8 to 10 years

Card 3/5

Some problems of aluminium production Z/034/61/000/010/001/002  
E112/E553

before it could be established successfully. The purchase of bauxite from overseas may be necessary. Ad 2) The electrolytic process for aluminium production from  $Al_2O_3$  is described in detail. Types of electrolytic cells are reviewed. Aluminium works ought to be built in the immediate vicinity of cheap electricity supply. The problem is complicated by the fact that power stations in Czechoslovakia are located in the more densely populated agricultural districts. The effects of the toxic anodic exhalations have to be carefully examined. These considerations would suggest that production units should not exceed an annual production of 100 000 tons of Al. In order to improve the economy of the electrolytic process, the use of semiconductor rectifiers and large electrolytic cells with an intensity of 100 kA are recommended. Ad 3) Discussion of electrothermic process. It should be possible, on theoretical considerations, to meet the entire Czechoslovak requirements of aluminium alloys (silumine, an alloy with silicium) from domestic raw materials (low-grade kaolines) by using the electric arc process. The construction of a high-capacity single-phase arc furnace remains the main problem. The purchase of a pilot-plant furnace from Eastern Germany is

Card 4/5

Some problems of aluminium production Z/034/61/000/010/001/002  
E112/E553

recommended. The results of some Soviet experiments with an  
experimental furnace of 16 MVA should be awaited.

ASSOCIATION: Hutní projekt, Prague

SUBMITTED: July 11, 1961

Card 5/5

HORCICKA, M.

Technology of ore crushing. p. 54.

Vol. 4, no. 2, Feb. 1956

RUDY

Praha, Czechoslovakia

Source: East European Accession List, Library of Congress  
Vol. 5, No. 8, August 1956

MANDIC, V.; HORCICKA, M.

Temporary prostheses in above knee amputations. Acta chir. Iugosl. 8  
no.4:360-364 '61.

1. Ortopedska klinika Medicinskog fakulteta u Zagrebu (Predstojnik  
prof. dr F. Grespic).

(ARTIFICIAL LIMB)

HORCICKA, Vaclav

Czechoslovak Standard 26 3108 on Parameters of Rubber Belt  
conveyers for Distance Transportation. Normalizace 11 no.5:  
152 My '63.

1. Transporta, n.p., Chrudim.



HORCIKHA, VIKTOR; FETUKAN, VLADIMIR, Prof. MUDr.

Measurement of the gastric evacuation time in ulcers by test meal. Vnitřní lek. 11 no.4:349-355 Ap'55.

1. Gastroenterologické laborator fakulty University Palackého v Olomouci (předseda: prof. MUDr. Vladimír Fetičan).

SVOBODA, Vladimir, inz.; HORCICKA, Zdenek, inz.

Gradient technology in using radio communication. Zel dop tech  
12 no. 4: Supplement: no. 4:1-8 '64.

HORCZAK, T.

HORCZAK, T. More solicitude for the fishery school. p. 4. GOSPODARKA  
RYBNA Warszawa, Poland. Vol. 8, No. 3, Mar. 1956

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6,  
June 1956

HORCZYNSKA, E.

3  
MPC (J2)

Distr: 4E2c(m)

Mechanism of deposition of ions from aqueous solutions.  
E. Horczyńska, Inst. Badan Jądrowych, Warszawa. *Vacuum*  
1974, 24, 1, 1-4. (Abstract in *Abstracts of the International Symposium on the Chemistry of the Solid State*, 1974, 1, 1-4.)  
Data and poly(methyl methacrylate) surfaces. *Vacuum* 1974, 24, 1, 1-4.

metal and poly(methyl methacrylate) surfaces are with ac-  
counted for. If adsorption is treated as an ion-exchange  
process. A metal is therefore assumed to be always covered  
by a layer of its compd., e.g., a hydroxide. Stock-

NGUYEN KHAC MAO; DROSTE, Z.; HORLEJUK, J.; TEISSEYRE, R.

Analysis of macroseismic phenomena and dynamic processes in the earthquake of June 12, 1961 in Vietnam. Acta geophys Pol 11 no. 1/2: 19-34 '63.

1. Institute of Geophysics, Polish Academy of Sciences, Warsaw.
2. Phu-Lien Observatory (for NGUYEN KHAC MAO).

DROSTE, Z.; DZIEWONSKI, A.; HORDEJUK, J.

Application of the capacity elements in the seismograph--  
galvanometer system. Acta geophys Pol 11 no. 1/2: 37-  
'63.

1. Zaklad Geofizyki, Polska Akademia Nauk, Warszawa.

HORDEK, J.

Dynamic characteristics of the center of the earthquake of November 16, 1911.

P. 103. (ACTA GEOPHYSICA POLONICA.) Poland, Vol. 5, No. 2, 1957.

SO: Monthly Index of East European Accessions (ALEI) Vol. 6, No. 11, November 1957.



3(5)

AUTHORS:

POL/26-7-2-4/18  
Droste, Z., Gibowicz, S., and Hordejuk, J.

TITLE:

Analysis of the First Movements of the Seismic Waves  
Recorded on Seismographs

PERIODICAL:

Acta geophysica polonica, 1959, Vol 7, Nr 2, pp 136-  
164 (POL)

ABSTRACT:

New problems developing in modern seismologic science require in many cases accurate knowledge of the true values of the amplitudes and periods of the first recorded movements of the seismic wave. These values are, as a rule, strongly deformed by instruments. Complete elimination of these distortions by computation is impossible at present owing to our lack of knowledge of the analytical shape of true ground movement. From recent research work it appears that the frequency characteristics computed for first ground vibrations do not show major dissimilarities. In order to simplify computation, a sinusoidal form of the ground vibrations will therefore be assumed in this investigation. Recent experimental material

✓


Card 1/3

POL/26-7-2-4/18

Analysis of the First Movements of the Seismic Waves Recorded on Seismographs

confirm the correctness of such an assumption. The purpose of this investigation is to examine the deformations in periods and first amplitudes caused by seismographs of various types. Two types of seismographs were examined. For the first type, seismographs with mechanical recording, the character of period and amplitude deformations in the first movement is shown in figure 15, the seismograph used being one with a free vibration period of 6 seconds and a damping constant of 0.1. The other type of apparatus investigated is the seismograph with galvanometric recording. The frequency characteristics in this case are illustrated in figures 19, 20, and 21. A full English summary appears on pp 157-164. There are 21 graphs and 7 references, 4 of which are Soviet, 1 Czech, 1 French, and 1 Polish

Card 2/3




POL/26-7-2-4/18  
Analysis of the First Movements of the Seismic Waves Recorded on  
Seismographs

ASSOCIATION: Instytut Geofizyczny Polskiej Akademii Nauk (Insti-  
tute of Geophysics of the Polish Academy of Sciences)

SUBMITTED: April 10, 1959

Card 3/3



HORDEJUK, J.; PIOTROWSKI, J.

The new seismologic station in Chapa (Vietnam). Przegl geofiz 6 no.4:  
291 '61

BOBR-MODRAKOWA, Irena [deceased]. DROSTE, Zofia; HORDEJUK, Jozef

A formula for the determination of earthquake magnitudes from surface waves adopted by the Warsaw Observatory. Acta geophys Pol 9 no.  $\frac{1}{2}$ :154-159 '61.

1. Zaklad Geofizyki PAN.

NIKOLIC, Mihailo; HORDERO, Georges; POIOVIC, Radivoj

Recollections on a typhus epidemic in a German camp for prisoners of war during the years 1942-1943 and 1943-1944. Srpski arh. celok. lek. 89 no.12:1391-1398 D '61.

(TYPHUS hist) (WAR) (PRISONS)

LANYI, Miklos, dr.; BAKONYI, Zoltan, dr.; HORDOS, Alajos, dr.

The importance of diagnosis in the treatment of chronic bronchitis.  
Orv. hetil. 105 no.32:1508-1511 9 Ag '64.

1. Budapesti Orvostudományi Egyetem, Tudorjogyszati Klinika  
es III. ker. Tanacs, Tudobeteggondozo Intezet.

HORDPOVA, J.; WEICHERT, J.

Studies of the vitamin K and vitamin E series. II. Analogues of the  $\alpha$ -tokopherol with unbranched side-chains. p. 133. (Chemické Listy. Vol. 5, no. 1, Jan. 1957.)

SO: Monthly List of East European Accession (EMAL) LC, Vol. 6, no. 7, July 1957. Uncl.



LEGATOWA, Bronislawa; HORDYNSKA, Sabina; BERNSTEIN, Irena

Determination of the mercury content in the grains of  
cereals dressed and undressed with mercury preparations.  
Roczn panstw zakl hig 14 no.3:221-224 '63.

HORDYNSKA, Sabina

Soluble mercury compounds in cosmetic creams. Rocz. Panstw.  
Zakl. hig. 16 no.5:461-466 '65

1. Z Zakladu Badania Zyznosc i Przedmiotow Uzytku Panstw-  
wego Zakladu Higieny (Kierownik: prof. dr. M. Wikonow).

HORDYNSKI, Krzysztof

A rare case of orbital foreign body. Klin. oczna 33 no.2:  
231-234 '63.

1. Z Kliniki Okulistycznej AM w Białymstoku Kierownik: prof.  
dr med. M. Dymitrowska.  
(ORBIT) (FOREIGN BODIES) (EYE INJURIES)

HORECKY, J.; HORECKA, E.

Hypothermic cardioplegia and deep hypothermia of the heart.  
Bratisl. lek. listy 44 no. 4: 211-222 '64.

1. Experimentálne laboratórium Katedry chirurgickej prope-  
deutiky Lek. fak. Univ. Komenského v Bratislave (vedúci: aka-  
demik K. Siska) a Detské stredisko 4. polikliniky Mestského  
ustavu národného zdravia v Bratislave (riadi: dr. M. Chorvat).

\*

HOUBAL, V.; HORECKA, J.; MORAVEK, V.

Studies on some liver diseases by means of non-specific reactions with sulfosalicyclic acid. Cesk. gastroent. vyz. 15 no.5:382-391 Ag '61.

1. Infekcni odd. KUNZ, fakultni nemocnice Brno-Bohunice, predn. doc. MUDr. V.Houbal Biochemicky ustav prirodovedecke fakulty v Brne, prednosta prof. RNDr. V. Moravek.  
(SALICYCLIC ACID rel cpds) (LIVER FUNCTION TESTS)

SIMEK, Karel; HORECKA, Jana; Technická asistence: SMILKALOVA, Marie

Heterohemagglutination in epidemic hepatitis. Scr. med. fac.  
med. Brunensis 36 no.5:241-248 '63.

1. Katedra mikrobiologie lékařské fakulty university J.E.  
Purkyne v Brně. Vedoucí katedry: MUDr. Lad. Jandasek, C.Sc.  
Infekční klinika fakultní nemocnice v Brně-Bohunicích  
Prednosta: prof. MUDr. Václav Houbal, Dr.Sc.  
(HEPATITIS, INFECTIOUS) (HEMAGGLUTINATION)  
(ANTIBODY FORMATION) (LIVER DISEASES)  
(LIVER FUNCTION TESTS)

HORECKA, Jindrich

Steel lattice masts for the 22 kv overhead lines. Energetika  
Cz 15 no.1:30-33 Ja '65.

1. Spojporjekt, Prague.

L 34070-00

ACC NR: AP6025847

SOURCE CODE: CZ/0017/66/055/002/0078/0082

AUTHOR: Horecky, Drahomir (Engineer)

ORG: Research and Development Institute of Rotary Electrical Machinery, Brno  
(Vyzkumny a vyvojovy ustav elektrickych stroju toclivych)

TITLE: Certain factors are given for calculations of the mean reactive voltage upon assumption that the current changes in the commutator coil are linear

SOURCE: Elektrotechnicky obzor, v. 55, no. 2, 1966, 78-82

TOPIC TAGS: electronic commutator, voltage regulation, direct current, electric motor, armature, magnetic field

ABSTRACT: Small and medium DC machines<sup>29</sup> usually are equipped with commutating poles having flat pole-shoes which generate a magnetic field which neutralizes the mean value of the reactive voltage. That voltage can be calculated with given equations. To simplify the calculation, Richter introduced the factors  $\mathcal{K}$  and  $\mathcal{K}'$ . Calculated values for quite a restricted number of cases were published by him. At the Institute the values of  $\mathcal{K}$  and  $\mathcal{K}'$  were calculated for all used armature windings for small and medium DC motors, and those values are presented in annexed tables. This paper was presented by Professor, Engineer J. Chladek. Orig. art. has: 4 figures, 15 formulas and 6 tables. [Based on author's Eng. abstract] [JPRS: 35,327]

SUB CODE: 09 / SUBM DATE: 02Jul65 / ORIG REF: 007 / OTH REF: 004

Card 1/1

UDC: 621.318



HORECKY, J. I. SEVOV

Použitie elektroniky (Applied Electronics) p. 430

TECHNICKA PRACA. Bratislava, Czechoslovakia, Vol. 7, No. 9, Sept. 1955

Monthly List of East European Accessions (EEAI) EC. Vol. 8, No. 9, September 1959  
Uncl.

KORECKY, J.

J. Korecky's Teplna zpracovanie kovov (Heat Treatment of Metals); a book review.  
p. 44.

Vol. 8, no. 1, Jan. 1956  
TECHNICKA PRACA  
Bratislava, Czechoslovakia

Source: East European Accession List. Library of Congress  
Vol. 5, No. 3, August 1956

HOODOWN

B. Klesken's Vyuzitie elektriny v domacnosti (Use of Electric Power in the Household); a book review. p. 281. TEKHNIKA PRACA. (Stavne nakladatelstvo technickej literatury) Vol. 6, no. 6, June 1956.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

HORECKY, J.

Some remarks on the terminology of organic compounds. p. 61 (Chemicke Zvesti.  
Vol. 11, no. 1 Jan. 1957) Bratislava

SO: Monthly List of East European Accession (EEAL) LC Vol. no. 7, July 1957, Uncl.

ROZHOLD, J.; ROZHOLD, Z.; PIVKOVA, A.; HORECKY, J.

Choice of perfusion flow in prolonged extracorporeal circulation. Bratisl. lek. listy 44 no.2:84-89 '64.

I. Chirurgické oddelenie Vojenskej nemocnice v Bratislave (veduci: MUDr. Z. Rozhold) a II. Chirurgická klinika Lek. fak. Univ. Komenského v Bratislave (veduci: akademik K. Siska).

PIVKOVA, A.; HORECKY, J.; ROZHOLD, J.; ROZHOLD, Z.

Some problems in prolonged extracorporeal circulation in  
experimental conditions. Bratisl. lek. listy 44 no. 4: 203-210  
\*64.

1. II. Chirurgická klinika v Bratislave (vedúci: akademik K.  
Siska) a Vojenská nemocnica v Bratislave (vedúci: MUDr.  
Z. Rozhold).

\*

HORECKY, J.; HORECKA, E.

Hypothermic cardioplegia and deep hypothermia of the heart.  
Bratisl. lek. listy 44 no. 4: 211-222 '64.

1. Experimentálne laboratórium Katedry chirurgickej prope-  
deutiky Lek. fak. Univ. Komenského v Bratislave (vedúci: aka-  
demik K. Siska) a Detské stredisko 4. polikliniky Mestského  
ustavu národného zdravia v Bratislave (riadi: dr. M. Chorvat).

\*

HORECKY, J.

CZECHOSLOVAKIA

no academic degree indicated

Department of cardiopulmonary surgery, Scientific Laboratory for the Research of Surgical Patophysiology, Medical Faculty, Comenius University (Oddelenie kardio-pulmonalnej chirurgie vedeckeho laboratoria pre vyskum chirurgickej patofyzio-logie Lekarskej fakulty Univerzity Komenskeho), Bratislava; Director: docent M. KRATPCHVIL, MD.

Bratislava, Bratislavske Lekarske Listy, No 9, Nov 62, pp 505-515.

"Changes of Brain and Peripheral Circulation in Oxygen Hyperventilation of the Lungs" (Preliminary Report)



HORECKY, J.

4  
CSSR

HORECKY, J.; SEVCIK, L.; STURNA J.; MINARIKOVA, P.

Dept, for cardio-pulmonary surgery of the Scientific Laboratory for  
research of surgical patophysiology at the Medical Faculty of Comenius  
University, Bratislava (Oddelenie kardiopulmonalnej chirurgie Vedeckého  
laboratória pre výskum chirurgickej patofyziologie Lek.fak. Univ.  
Komenského), director: docent M. Kratochvíl, MD

Bratislava, Bratislavské Lekárske Listy, No 7, 1963, pp 385-393

"The Importance of Hypothermia in Bohemia Anoxia of the Myocardium"

CZECHOSLOVAKIA

HONECKY, J.

Department of Cardiopulmonary Surgery of the Laboratory  
of Higher Surgical Pathophysiology of the Medical  
Faculty of Komensky University (Oddelenie kardio-  
pulmonalnej chirurgie laboratoria pre vyskum chirurgickej  
patofyziologie Lek. fak. Univ. Komenskeho), Bratislava

Bratislava, Bratislavske lekarske listy, No 8, 1963, pp 462-  
468

"The Effect of Selective Cooling of the Brain on the Degree  
of Oxygen Utilization from the Blood of the Cerebral  
and Corporeal Circulation."

4

CZECHOSLOVAKIA

ROZHOLD, Z; ROZHOLD, J; PIVKOVA, A; HORECKY, J; BROZMAN, M.

1. Surgical Ward of the Military Hospital (Chirurgické oddelenie Vojenskej nemocnice), Bratislava (for Rozhold); 2. Second Surgical Clinic of the Medical Faculty of Komensky University (II. chirurgická klinika Lek. fak. Univ. Komenského), Bratislava; 3. Institute of Pathological Anatomy of the Medical Faculty of Komensky University (Ústav patologické anatomie Lek. fak. Univ. Komenského), Bratislava (for Brozman)

Bratislava, Bratislavské lekárske listy, No 11, 1963, pp 662-669

"The Use of Extracorporeal Circulation for Regional Perfusion with Chemotherapeutics in Malignant Tumors."

HORECKY, J.; Technická spolupráca: MALINOVÁ, E.

Effect of selective cooling of the brain on the degree of oxygen utilization from the cerebral and corporeal circulation. Bratisl. lek. listy 43 Pt. 1 no.8:462-471 '63.

1. Oddelenie kardiopulmonálnej chirurgie laboratória pre výskum chirurgickej patofyziologie Lek. fak. Univ. Komenského v Bratislave, veduci doc. MUDr. M. Kratochvíl.

(BRAIN) (HYPOTHERMIA, INDUCED)  
(ENERGY METABOLISM) (TISSUE METABOLISM)  
(ISOLATION PERFUSION) (BODY TEMPERATURE)  
(OXIMETRY) (BLOOD PRESSURE) (DOGS)  
(CEREBROVASCULAR CIRCULATION)

HORECKY, J.; PIVKOVA, A.

Oxygen consumption of the selectively cooled brain. Bratisl.  
lek. listy 43 Pt. 2 no.4:221-228 '63.

1. Experimentálne laboratórium Katedry II chir. kliniky Lek.  
fak. Univ. Komenského v Bratislave, vedúci akademik ČSAV  
K. Siska.

(BRAIN) (TISSUE METABOLISM)  
(ENERGY METABOLISM) (HYPOTHERMIA, INDUCED)  
(CEREBROVASCULAR CIRCULATION)  
(BLOOD VISCOSITY)

HORECKY, J.; PIVKOVA, A.

Blood flow changes during hypothermic brain perfusion. Bratisl.  
lek. listy 43 Pt. 2 no.5:260-270 '63.

1. Experimentálne laboratorium Katedry II chirurgickej kliniky  
Lek. fak. Univ. Komenského v Bratislave, veduci akademik  
K. Siska.

(PERFUSION) (CAROTID ARTERIES)  
(HYPOTHERMIA, INDUCED)  
(CEREBROVASCULAR CIRCULATION)

HORECKY, J.; PIVKOVA, A.; ROZHOLD, J.; ROZHOLD, Z.

Effect of extracorporeal cardiopulmonary by-pass on the healthy body in experimental conditions. Bratisl. lek. listy 44 no.6: 358-368 30 S '64.

1. Experimentálne laboratórium Katedry II. chirurgickej kliniky Lek. fak. Univerzity Komenského v Bratislave, (vedúci akademik K. Siska) Chirurgické oddelenie Vojenskej nemocnice v Bratislave, (vedúci MUDr. Z. Rozhold).

HORECKY, J. Technicka spoluprace TROCHTA, L.

Heat exchange in regional perfusion. Rozhl.chir. 44 no.1:51-63  
Ja '65

1. Experimentálne laboratórium II. chirurgickej kliniky Lekárskej  
fakulty University Karlovy v Bratislave (prednosta: akademik  
K. Siska).



SUJANSKY, E.; HORECKY, J.; SILVAY, J.

Vascular tonus changes during selective hypothermia of brain.  
Bratisl. lek. listy 45 no.11:666-674 15 Ja '65.

1. Ustav experimentalnej chirurgie Slovenskej akademie vied  
v Bratislave (riaditel: akademik K. Siska, Dr.Sc.) a Exp. laborat-  
orium II. chirurgickej kliniky Lekarske fakulty Univerzity  
Komenskeho v Bratislave (veduci: akademik K. Siska, Dr.Sc.).

HAVIAR, V.; ZAJAC, M.; HORECKY, J.; PIVKOVA, A.; ROZHOLD, J.; ROZHOLD, Z.

Use of a pump oxygenator in the treatment of patients with cor pulmonale complicated by hepercapnia and respiratory acidosis.  
Bratisl. lek. listy 45 no.6:367-371 30 S '65.

1. Z II. int. kliniky Lek. fak. Univerzity Komenského v Bratislave (veduci prof. MUDr. V. Haviar) z II. chir. kliniky Lek. fak. Univerzity Komenského (veduci prof. MUDr. K. Siska) a z chir. odd. Vojenskej nemocnice v Bratislave (veduci MUDr. Z. Rozhold).

HORECNY, K.

Normal mineral values in the urine of infants. Bratisl. lek.  
listy 44 no.1:37-42 '64.

1. Katedra pediatrie II. lek. fak. Univ. Komenského v  
Bratislave; veduca: prof. MUDr. J. Michalickova.

HORECNY, K.

HECKO, I.; HORECNY, K.; PENIAZKA, J.

A continuous unevenly distributed cyanosis in a newborn caused  
by an excentric hypertrophy of the thymus. Pediat. listy 5 no.1:8-10  
Ja-F '50. (GLML 19:3)

1. Of the Children's Clinic and of Pathologico-Anatomical Institute  
of Slovak University in Bratislava.

HORECNY, K.

Ingol solution reaction in pediatrics. Lek. obzor 1 no.11:554-559  
1952. (CJML 24:3)

1. Of the Pediatric Clinic of Slovak University, Bratislava.

HORECHY, K.; WAGENHOFER, E.

Diagnostic examination of the cerebrospinal fluid in children.  
Bratisl. lek. listy 34 no.2:148-168 F '54.

1. Z Detskej kliniky LFSU v Bratislave, prednosta doc. dr  
J. Michalickova.

(PEDIATRIC DISEASES, cerebrospinal fluid in,)

\*(  
(CEREBROSPINAL FLUID, in various diseases,  
\*pediatric dis.)

*HORECNY, K.*

HORECNY, K.; WAGENHOFER, E.

Possibilities and importance of electrophoresis in determination of blood proteins in pediatrics. Bratisl. lek. listy 34 no.5:497-510 My 54.

1. Z II. detskej kliniky LFŠU v Bratislave, prednosta doc. dr. J. Michalickova.

(BLOOD PROTEINS, determination,  
electrophoresis in inf. & child.)

(ELECTROPHORESIS,  
of blood proteins in inf. & child.)

BREUER, E.; HORSENY, K.; WAGENHOFER, E.

Aldolase test in children. Cesk. pediat. 13 no.9:803-805 5 Oct 58.

1. II. detska klinika LFUK v Bratislave, prednosta doc. Dr. Jaroslava Michalickova.

(DESMOLASES

symohexase test in child., diag. value (Cz))



HORECNY, K.

Requirements and utilization of proteins from maternal and cow milk in infants under half year of life. Cesk.pediat.16 no.2:106-114 F '61.

1. II. detska klinika LFUK v Bratislave, prednosta doc. dr.  
J. Michalickova.

(INFANT NUTRITION)  
(PROTEINS metab)

HORECNY, K.; Techn. spolupraca: SULKO, M.

Apropos of the further "humanization" of artificial nutrition for infants. I. Optimum protein supply. Bratisl. lek. listy 44 no.3:129-138 15 Ag '64.

1. Katedra pediatrie II Lek. fak. Univ. Komenskeho v Bratislave (veduca prof. MUDr. J. Michalickova)

HORECNY, K.

Protein requirement and utilization from human and cow's milk in infants during the first six months of life. Rev. Czech. M. 8 no.1: 53-62 '62.

1. Second Paediatric Clinic Medical Faculty, Comenius University, Bratislava. Director: Doc. Dr. J. Michalickova.  
(INFANT NUTRITION) (PROTEINS nutrition & diets)

HORECNY, K.

4

CSSR

HORECNY, K.

co-workers: SLKO M., BREUER E., JANSKOVA M.

Second Pediatric Clinic of the Medical Faculty of Comenius University,  
(II. detská klinika Lek. fak. Univ. Komenského), Bratislava, director:  
J. Michalickova

Bratislava, Bratislavské Lekárske Listy, No 7, 1963, pp 423-430

"The Utilisation of Qualitatively Different Proteins in Extreme Nutrition  
of Toddlers"

HORECNY, K.; SACHEROVA, A.

Histological changes of the skin and their relation to the nutritional status of infants during 1st 3 months of life.  
Cesk. pediat. 20 no.11:937-940 N '65.

1. II. Detska klinika Lekarskej fakulty Univerzity Komenskeho  
v Bratislave (prednostka prof. dr. J. Michalickova, DrSc.).

HOREJS, Ivan, inz.

Czechoslovak Standard 46 7221 : Hen and chicken breeding in cages. Normalizace 11 no. 12: 386-387 D '63.

1. Ustredni vyzkumny ustav zivocisne vyroby, Uhrineves.

HOREJS, Jiri

Principles of automatic digital computers. Poroky mat fyz astr  
7 no.1:15-23 '62.

1. Univerzita J.E.Purkyne, Brno.

HOREJS, Josef

HOREJS, Josef. MUDr, klin, asistent

General anesthesia in extensive maxillary surgery. Cesk.stomat.  
no.4-5:168-172 J1 '55.

1. Z II stomatologicke kliniky KU v Praze, predn.prof. Dr. F.  
Heuwirt.

(MAXILIA, surgery,  
anesth., endotracheal)  
(ANESTHESIA, ENDOTRACHEAL,  
in maxillary surg.)



HOREJS, J. (Brno, Czechoslovakia)

Transformations determined by finite automata. Probl. kib. no. 9:23-26  
'63. (MIRA 17:20)

HOREJS, S.

HOREJS, S. Evaluating the abrasive properties of rails and railway rims on the basis of laboratory tests. p. 721.

Vol. 11, no. 12, Dec. 1956  
HUTNICKE LISTY  
TECHNOLOGY  
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

HOREJS, S.

Hardening the ends of rails at the temperature of final rolling. p. 91.  
(Hutník, Vol. 7, No. 3, Mar 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

AUTHOR: Hořejš, Slavomír, Ing. CZECH/34-59-7-22/22

TITLE: The Dependence of the Hardness Distribution on the  
Microstructure in the Head of Surface-Hardened Rails  
(Souvislost průběhu tvrdosti v hlavě povrchově kalených  
kolejnic s mikrostrukturou)

PERIODICAL: Hutnické Listy, 1959, Nr 7, pp 649-656 (Czechoslovakia)

ABSTRACT: Czechoslovak Metallurgical Report, Nr 7, July, 1959.  
One of the possible methods of heat treatment of rails  
is to harden the surface by quenching the railhead from the  
temperature of the rail at the end of the rolling process  
and to temper it by means of the internal heat of the  
core of the rail and the railhead. This method is  
applicable both for hardening the ends of rails and also  
for hardening the running surface of the railhead.  
Experience gained during 1953 and 1954 at the Vítkovice  
Iron Works (Ref 1) has shown that the hardness does not  
decrease continuously with the depth as it should; at a  
certain depth below the running surface the drop in  
hardness stops and there is a rise in the hardness with  
depth which is followed by a continuous slow drop in  
hardness towards the centre of the railhead. Since it is

Card 1/6

CZECH/34-59-7-22/22

The Dependence of the Hardness Distribution on the Microstructure  
in the Head of Surface-Hardened Rails

known from literature (Ref 2) that, in surface hardened rails, the surface hardened layer frequently peels off and there may even be slip of the hardened layer in the longitudinal direction followed by chipping off, the author of this paper considered it of interest to investigate the cause of the transient increase in hardness and the relation between this increase and the applied hardening process. Most authors do not mention the presence of a transient increase in hardness at a certain depth below the running surface, however, H. O'Neill (Ref 3) reported that he detected a transient increase in the hardness of surface hardened rails with carbon contents of 0.50 to 0.55% and manganese contents of 1.10 to 1.20%. His results are reproduced in the graph, Fig 1, p 649. The author of this paper carried out tests under laboratory and normal operation conditions. The equipment used in the experiments was described in an earlier paper. It consisted of a sheet steel box, one side of which was provided with holes, the

Card 2/6

CZECH/34-59-7-22/22

The Dependence of the Hardness Distribution on the Microstructure in the Head of Surface-Hardened Rails

shapes of which were adapted to the shape of the railhead. Asbestos lining prevented penetration of the water to the vertical and the bottom parts of the rail. In the laboratory experiments, rail sections of about 500 mm length were used with chemical compositions as enumerated in Table 1; for two of these the hardness as a function of the depth is graphed in Fig 2, whereby one of the rails was quenched for 27 secs from 830 °C, the other was quenched for 45 secs from 830 °C. For the spots designated by arrows in this graph, microstructure photographs were taken which are reproduced in Figs 3 and 4. Comparison of the microstructure with the hardness characteristic shows that the zone of maximum hardness, directly below the running surface, consists of pure sorbite (Fig 3a, 4a), whilst at the spots of relative minimum hardness the structure was found to be bainitic. The beginning of the second increase in hardness is characterized by the appearance of fine pearlite (troostite), Figs 3b and 4b, in continuously increasing quantities until fine pearlite is

Card 3/6 the only structural component in the region of the relative

CZECH/34-59-7-22/22

The Dependence of the Hardness Distribution on the Microstructure  
in the Head of Surface-Hardened Rails

hardness maximum, Fig 3e. Then, towards the core of the railhead, the inter-lamellar distance increases gradually and so does the quantity of pro-eutectic ferrite at the grain boundaries. According to O'Neill, the formation of a pronounced bainitic zone is due to the transformation characteristics of a given steel during continuous cooling. If this were true, a similar phenomenon should occur in Jominy test rods made of the same material. However, results, shown in Fig 5, confirm the known fact that for these steels Jominy test specimens do not show a transient increase in hardness, i.e. that the explanation of O'Neill is incorrect. On the basis of the obtained results it is concluded that:

1) A condition for the occurrence of a pronounced bainite zone is the existence of an austenite zone (possibly with a certain quantity of bainite) under the martensite zone at the instant when the quenching is stopped. During subsequent tempering by the internal heat of the rail, this austenite becomes transformed into bainite. Thus,

Card 4/6

✓

CZECH/34-59-7-22/22

The Dependence of the Hardness Distribution on the Microstructure  
in the Head of Surface-Hardened Rails

a determining factor on whether a pronounced bainite zone occurs is the mutual relation between the quenching time and the hardenability of the used steel.

2) The formation of a relative minimum and a relative maximum is due to the fact that during tempering the hardness of the bainite drops faster than that of fine pearlite so that even after a few seconds the hardness of the bainite will be lower than the hardness of the fine pearlite.

3) The occurrence of a relative minimum and a relative maximum on the hardness curves in the cross-section of a surface hardened rail is not a necessary condition for the existence of a relative maximum and a relative minimum on the hardness curve obtained on a Jominy specimen hardened by current methods. However, if the hardening time is shortened, Jominy specimens will also show relative minima and relative maxima of the hardness.

4) The formation of a bainite zone, and thus also the formation of a relative minimum and maximum of hardness,

Card 5/6 can be prevented either by increasing the quenching ✓



CZECH/34-59-7-22/22

The Dependence of the Hardness Distribution on the Microstructure  
in the Head of Surface-Hardened Rails

duration (if this is possible without exceeding the maximum permissible hardness of the tempered martensite, which should not exceed 400 HB), or by reducing the hardenability of the used steel to  $D_1 \leq 35$  mm.

5) Practical experience gained in 2 1/2 years rail operation indicates that the presence of the bainite zone in the hardened ends of rails does not affect adversely the rail performance on the track.

There are 13 figures, 2 tables and 10 references, 2 of which are Czech, 5 English and 3 German.

ASSOCIATION: Výzkumný ústav VŽKG, Ostrava  
(Research Institute VŽKG, Ostrava)

SUBMITTED: March 4, 1959 ✓

Card 6/6

HOREJS, Slavomir, inz.

Collars with high wear resistance for the Czechoslovak  
railroads. Hut listy 17 no.4:231-239 Ap '62.

1. Vyzkumny ustav, Vitkovické železárny Klementa Gottwalda,  
Ostrava.

PUNCOCHAR, Z., inz.; HRBEK, A.; CHVATAL, Vlad., inz.; VETSIKA, A.; KECLIK, V.;  
JENICEK, L.; POKORNY, A.; HOREJS, S.; ZIDEK, inz.

Information on metallurgy. Hat listy 16 no.6:445-455 Je '61.

PUNCOCHAR, Z., inz.; BENDA, O.; CHVOJKA, Jan, inz.; CHVATAL, V.; HREBK, A.;  
KRUMNIKL, F.; HOREJS, S., inz.; TEINDL, J.; SESTAK, B.

Information on metallurgy. Hut listy 16 no.8:596-605 Ag '61.

HOREJS, Slavomir, ina.

Possibilities for the improvement of the quality of railroad  
rails. Hut listy 16 no.8:533-539 Ag '61.

1. Vyzkumny ustav, Vitkovicke zelezarny Klementa Gottwalda,  
Ostrava.

HOREJS, Slavomir, inz. CSc.

Wheel tires highly resistant to wear for electric locomotives.  
Zel dop tech 12 no. 4:92-94 '64.

L 21356-66 EWA(d)/EWP(t) JD

ACC NR: AP6010889

SOURCE CODE: 01/0034/65/000/001/0554/0562

AUTHOR: Motloch, Zdenek (Engineer); Horejs, Slavomir (Engineer, Candidate of sciences)

ORG: Metallurgical Research Institute Klement Gottwald Vilekovic Iron Works, Ostrava  
(Vyzkumny ustav metalurgicky VZKG)

TITLE: Properties of rails made from vacuum degassed steels

SOURCE: Hutnicke listy, no. 8, 1965, 558-562

TOPIC TAGS: tensile strength, steel, wear resistant ferrous metal, toughness, vacuum degassing, carbon steel, chemical composition, metal rolling, fabricated structural metal

ABSTRACT:

offers both a better quality product and a more economical production method. Rails made from degassed steel and air-cooled after rolling show an improved tensile strength, higher toughness, and better wear resistance than rails made from ordinary steel and cooled slowly in pits. Certain differences found in the properties of samples taken from various spots in a single billet are explained by changes in chemical composition in the respective parts of the billet. Practical experience with the rails shows that double the length of life can be expected from these rails than from those made from carbon steel that was not degassed. Orig. art. has: 6 figures and 5 tables. [JRS]

SUB CODE: 13, 11, 07 / SUBM DATE: none / ORIG REF: 003 / SOV REF: 001  
Card 1/1

UDC: 669.421.669.188

HOREJS, Viktor

Some principles of economy in applying protection coatings.  
Tech prace 15 no.9: Supplement: Naterove hmoty a natery.  
15 no.9: insert S'63.



HOREJS, Viktor

Coatings protecting from weather, moisture, and water,  
corrosion. Tech praca 16 no. 4:311-313 Ap '64.

HOREJS, Viktor

Problems of designation and nomenclature of coating materials  
and coatings. Tech praca 16 no.12: Suppl: Materove kmoty a natery  
16 no.12:insert D '64.

HOREJSI, Jiri, prof. inz. dr.

~~Second National Conference on the Dynamics of Structures. Stav cas 12~~

Second National Conference on the Dynamics of Structures. Stav cas 12  
no.2:131-132 '64.

1. Ceske vysoke uceni technicke, Praha.

HOREJSI, JIRI.

Sbirka resenych prikladu staticky neurocitych konstrukci. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953. 254 p. (Ucetni texty vysokych skol) [A collection of problems with solutions for statically uncertain structures. diagrs.]

SO: Monthly List of East European Accessions, Vol.3, No.3, Library of Congress, March 1954, Unol.

Horejsi, J.

Use of the method of fixed points in calculation of certain symmetrical building structures. p. 185. INZENYRSKE STAVBY.  
(Ministerstvo stavebnictvi) Praha. Vol. 4, no. 4, Apr. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

HOREJSI, J.

HOREJSI, J. Approximate calculation of a two-hinged straight plate.  
p. 332, Vol<sup>4</sup>, no. 7, July 1956. INZENYRSKE STAVBY  
(Ministerstvo stavebnictvi)  
Praha, Czechoslovakia

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6 NO 4 APRIL 1957

HOREJSI, J.

"Development of hydroelectric-power stations in France." p. 212.

VOENI HOSPODARSTVI. (Ustredni sprava vodniko hospodarstvi). Praha,  
Czechoslovakia, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

HOREJSI, J.

Development of hydraulic works in Morocco. p. 386.

VODNI HOSPODARSTVI. (Ministerstvo energetiky a vodniho hospodarstvo a  
Vedecka technicka spolecnost pro vodni hospodarstvi) Praha, Czechoslovakia.  
No. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

Uncl.



L 30111-66 T/EMP(t)/EII IJP(c) JD  
 ACC NR: AP6020593 SOURCE CODE: CZ/002B/65/000/006/0325/0338  
 AUTHOR: Horejs, Jiri (Brno) 38  
 ORG: none B  
 TITLE: Relation of form and content in mathematics and logic. I  
 SOURCE: Pokroky matematiky fyziky a astronomie, no. 6, 1965, 325-338  
 TOPIC TAGS: mathematic logic, mathematics, applied mathematics  
 ABSTRACT: The article points out the problem and meaning of mathematical formulations of theory and discusses certain main conclusions of classical mathematics of logic and new tendencies (mechanical mathematics). Orig. art. has: 1 table. [JPRS]  
 SUB CODE: 12 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 003  
 SOV REF: 003

Card 1/1 ULTR

HOREJSI, Jiri, doc., inz. dr.

---

"Dynamics of building constructions" by Vladimir Kolcusek.  
Reviewed by Jiri Horejsi. Inz stavby 9 no.9:356 S '61.

HOREJSI, Jiri, doc., inz., dr.

"Practical statistics according Cross, Steinman and Kani" by H. Heide.  
Reviewed by Jiri Horejsi. Inz stavby 9 no.11: 44/ N '61.

KOSTAL, Rostislav; HOREJS, Jiri; VEJSADA, Frantisek; LEPIL, Oldrich;  
PECINA, Vaclav; LAITICH, Miroslav; VESELY, Frantisek;  
KLEIN, Tomas

The activities of the Association of Czechoslovak Mathematicians  
and Physicists. Pokroky mat fyz astr 7 no.4:252-258  
'62.

HOREJSI, Jiri, doc., inz., dr.

"Introduction to statics" by F. Chmelka and E. Melan. Reviewed by  
Jiri Horejsi. Inz stavby 10 no. 2:78-79 F '62.

HOREJSI, Jiri, doc., inz., dr.

"Mathematic theory of plane elastic problems" by P. F. Todorescu.  
Reviewed by Jiri Horejsi. Inz stavby 10 no. 2:79-80 F '62.

Horejsi J. Novinky v lekarske laboratorii News in medical laboratory Prakticky  
Lekar 1947, 27/12 (255-259) Graphs 4

So: Physiology, Biochemistry & Pharmacology, Section II, Vol. I, #1-6

HOREVSI, J.

Infectious hepatitis. Gastroenterologia bohemica 4 no.2-4:58-84  
Oct 50. (QIML 20:5)



HOREJSI, J.

Significance of amino acids. Sborn. pathophysiol. trav. vyz. 5 no.3:  
81-88 Dec 51. (CML 21:4)

J.  
HOREJSI, PROCHAZKA, RASKA, K.

Infectious hepatitis (Botkin's disease) Prakt. lek., Praha  
31 no. 10:224-231 20 May 1951. (CLML 22:3)

HOREJSI, J.

HOREJSI, J.; KOSTECKOVA, A.; KULISOVA, D.; PIHRT, J.; TRNKA, F.

Report from the infectious hepatitis ward of the Masaryk Hospital  
in Krca. Cas. lek. cesk. 90 no.31:928-933 3 Aug 1951. (CJML 21:1)

HOREJSI, J., Dr.; ZAVORKA, F., Dr.

Amino nitrogen balance in liver diseases in various diets. Cas.  
lek.cesk. 91 no.14:427-432 4 Apr 52.

1. Ustredni laboratore SF N a I. klinika chorob vnitrnich prof.  
dr. Netouska v Praze.

(NITROGEN, in urine,

amino nitrogen balance in liver dis., eff. of diet)

(LIVER, diseases,

amino nitrogen balance, eff. of diet)

(DIETS, in various diseases,

liver dis., eff. on amino nitrogen balance)